

REMARKS

In the Office Action of January 11, 2005, claims 1-3 and 5-6 stand rejected under 35 U.S.C. §102(b), as being anticipated by U.S. Patent No. 2,838,388 to Carkeek ("Carkeek"). Claims 1-2 and 6 stand rejected under 35 U.S.C. 102(b) as being anticipated by DE 2,044,310 to Schlinger ("Schlinger"). Finally, claim 4 stands rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Carkeek.

In response to the Examiner's rejections, Applicant has canceled claim 4 and amended claim 1. Support for the amendment of claim 1 is found in lines 1-25 of page 4 and page 6, line 25 to page 7 line 8 of the application. Claims 1-3 and 5-6 remain pending for continued prosecution. No new matter is being added.

The office action recites that Carkeek discloses a coal gasification process where the slurry of coal and water is heated in an indirect heat exchanger. However, this characterization of the heater is incorrect. Carkeek does not specifically define the type of heater used but discloses that the slurry of coal and water may be heated to a maximum temperature of 1500°F (816°C). Applicants respectfully point out that indirect heat exchanger can not heat the slurry to such a high temperature. The heating coil of Carkeek is heated using a direct heat exchanger, such as a direct flame burner. When the heating coil is heated by direct heat exchanger such as a flame burner, hot spots (partial superheating) occur on the heating coil. When hot spots occur, the thermal decomposition of the coal can occur in the heating pipe resulting in clogging of the heating pipe.

To the contrary, the presently claimed invention heats the slurry of coal in water using a heating medium having a predetermined temperature of 200°C to 600°C. The lower temperature

of the presently claimed invention and the use of indirect heat exchanger inhibits the occurrence of hot spots and the clogging problem. Thus, Carkeek does not disclose, teach, or suggest all the limitations of Claim 1.

In addition, Applicants point out that the Examiner has not provided an English translation of Schlinger reference. In order to respond to the rejection, Applicants are relying on U.S. Patent No. 3,544,291 to Schlinger et al. which appears to be the counterpart application to the Schlinger reference. A copy of U.S. Patent No. 3,544,291 ("Schlinger '291) is submitted herewith.

Schlinger '291 reference describes a process in which the slurry of coal in water in liquid phase is fed to the reaction zone (the gas generator – Claims 1 and 5, and page 1 – 1<sup>st</sup> paragraph), and a process is in which a dispersion or suspension of coal in steam is fed to the reaction zone (page 3, 1<sup>st</sup> and 2<sup>nd</sup> paragraphs). However, Schlinger '291 describes that the slurry of coal in water may be heated directly by a burner according to the Figure in Schlinger '291. When the slurry is heated using a heating coil by a burner, the coking process and thermal decomposition of the coal occurs in the heating pipe due to the higher temperature. Schlinger '291 discloses a maximum temperature 3200 °F (1760°C). This could result in clogging of the heating pipe. The presently claimed invention as mentioned above heats the slurry of coal in water using a heating medium (e.g. an indirect heat exchanger) having a temperature of 200°C to 600°C. This inhibits the occurrence of hot spots which in turn inhibits the coking process and thermal decomposition of the coal that can occur in the heating pipe. As a result, the clogging problem is minimized. Schlinger '291 and DE 2,044,310 do not disclose, teach, or suggest all the limitations of Claim 1. Withdrawal of the rejection is respectfully requested.

Applicant respectfully submits that the application is in condition for allowance which action is earnestly solicited. If for any reason the application is not deemed in condition for allowance, the Examiner is respectfully requested to contact the undersigned attorney so that additional amendments may be entered as necessary.

If any fees are due, please charge such sums to our Deposit Account 50-1145.

Early examination and allowance are respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Gerald Levy", written in a cursive style.

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